



Wireless Local Area Networks (WLAN/WiFi)

Usage Regulations

1) Introduction

WLAN/WiFi transfer data with high speed rates, and support the function of Access Networks. They are distinct for their easy installation, rapid spreading, and their relatively low installation cost, which helps the spread of internet services and applications.

2) Definitions

WLAN/WiFi:

Communication networks used to provide wireless services in a limited area. Such networks are built in accordance with the international standards, such as IEEE 802.11/HIPERLAN, and provide the user with the ability to move within a limited area.

Indoor: Area located within personal premises, where the radio waves of these wireless networks are propagating (Houses, hotels, airports, etc).

Outdoor: Areas located outside of personal premises, where the radio waves of these wireless networks are propagating (Streets, seashores, parks, etc).

Primary Service: Any service that CITC allocates a frequency for, and registers in its frequencies' registry. CITC is responsible for protecting these frequencies against any harmful interference.

Secondary Service: Any service which shall not cause harmful interference to primary services, and cannot claim protection from harmful interference caused by such primary services.



Harmful Interference: Interference which seriously degrades, obstructs or repeatedly interrupts a radio communication service operating in accordance with international radio regulations issued by International Telecommunication Union (ITU).

ERIP: The Effective Isotropic Radiated Power is the actual power emitted by the antenna.

TPC: Transmission Power Control is the feature of controlling transmission power in order to avoid any harmful interference with frequencies specified for the usage of primary services.

DFS: Dynamic frequency selection is the feature of avoiding any harmful interference with other systems operating in a specific frequency band.

3) Operating and Coverage Areas

WLAN areas of operation are divided into:

1. Indoor, for personal and commercial purposes:

any normal person, without any license requirements, can operate and use such networks for indoor coverage.

2. Outdoor:

Such networks could be operated for outdoor coverage only by fixed facility- based providers or data services providers.

4) Network Connections

These WLAN networks can be connected with the internet network by the following CITC licensees:

1. Fixed facility- based providers.
2. Data service providers.

5) Rules of Operating and Using Networks

WLAN can be used as an alternative to wired networks, indoor and outdoor, and can be used to get internet service from CITC licensed ISPs under the CITC bylaw and regulations, on condition of adherence to the following rules:

1. All devices which are used in these networks must comply with the technical specifications, areas of coverage, and frequencies approved by the CITC (**as shown in the attached table**). It is not permitted to make any modifications in the technical specifications without prior written approval from CITC.
2. All devices which are used must comply with the safety specifications, electromagnetic compatibility, and any other CITC related specifications.
3. To provide to the CITC, when requested, all required documents to prove the compliance of the devices with the technical standard specifications and any other related documents and proofs.
4. To ensure that the operation of the devices and the appropriate places for their installation, especially in terms of improving the level of network security, will prevent any possible hacking or misuse.
5. The operator of these networks for outdoor usage must coordinate with concerned authorities to obtain any required licenses for the implementation of the network.
6. Internet service must be provided only through an internet service provider licensed by the CITC..
7. Internet service providers are responsible for registering users' data and all other technical requirements.

8. Services provided through these networks are considered secondary services; thus they are not protected against any possible interference, and must not, at anytime or anywhere, cause any harmful interference to the primary services. CITC shall not be held liable for any damages following use of these networks.
9. The usage of these networks is subject to all CITC regulations, the anti-crime law and all other related regulations.

6) General Regulations

1. Network operators must coordinate with CITC before the commercial launch of services, to ensure compliance with the requirements for using and operating these networks.
2. Internet service providers of these networks should educate users on how to effectively use these networks.
3. These rules replace the previous rules for indoor usage of WLAN's,, and the temporary rules for internet service provision through WLAN, using WiFi technology, for outside private complexes and buildings.
4. Service providers must adhere to all CITC regulations, decisions, and guidelines, and all procedures and instructions issued by the CITC for the regulation of usage of these networks. For further information, reference should be made to the CITC website (www.citc.gov.sa) for information on new regulations, bylaws or other instructions in this regard.

Attachment

Table of Technical Specifications, Areas of Coverage, and Approved Frequencies by CITC

Technical Specifications						
Standard Specifications	Area of Coverage	(Dynamic Frequency Selection DFS)	(Transmit power control-TPC)	(Radiated Power Spectral Density Limit-PSD)	(Maximum EIRP)	Frequency MHz
EN 300 328	Indoor & Outdoor	N/A	N/A	10mW/MHz in any 1 MHz band	100 mW	2400-2483.5
EN 301 893 & ITU-R M1652	Indoor	N/A	N/A	10mW/MHz in any 1 MHz band	200 mW	5150 -5250
EN 301 893 & ITU-R M1652	Indoor	Required	Required	10mW/MHz in any 1 MHz band	200 mW	5250 - 5350
EN 301 893 & ITU-R M1652 & IEEE802.11 a	Indoor & Outdoor	Required	Required	50 mW/MHz in any 1 MHz band	1W	5470-5825

Frequencies allowed to use

"For more information please refer to CITC website: www.citc.gov.sa"